LPDES PERMIT NO. LA0120251, AI No. 152055

LPDES STATEMENT OF BASIS
FOR THE DRAFT LOUISIANA POLLUTANT DISCHARGE ELIMINATION SYSTEM
(LPDES) PERMIT TO DISCHARGE TO WATERS OF LOUISIANA

I. **Company/Facility Name:** Louisiana Green Fuels, LLC
Lacassine Facility
Post Office Box 229
Lacassine, Louisiana 70650

II. **Issuing Office:** Louisiana Department of Environmental Quality (LDEQ)
Office of Environmental Services
Post Office Box 4313
Baton Rouge, Louisiana 70821-4313

III. **Prepared By:** Sonja Loyd
Industrial Permits Section
Water Permits Division
Phone #: 225-219-3090
E-mail: sonja.loyd@la.gov

Date Prepared: November 18, 2008

IV. **Permit Action/Status:**

A. Reason For Permit Action:

Proposed revocation and reissuance of a current Louisiana Pollutant Discharge Elimination System (LPDES) permit for a 5-year term following regulations promulgated at LAC 33:IX.2711/40 CFR 122.46, LAC 33:IX.2903/40 CFR 122.62, and LAC 33:IX.3105/40 CFR 124.5.

LAC 33:IX Citations: Unless otherwise stated, citations to LAC 33:IX refer to promulgated regulations listed at Louisiana Administrative Code, Title 33, Part IX.

40 CFR Citations: Unless otherwise stated, citations to 40 CFR refer to promulgated regulations listed at Title 40, Code of Federal Regulations in accordance with the dates specified at LAC 33:IX.2301.F, 4901, and 4903.

B. LPDES permit - Individual LPDES permit
LPDES permit effective date - March 1, 2007
LPDES permit expiration date - February 29, 2012

LAG670097 (Hydrostatic - Re-authorization)
LPDES permit effective date - February 1, 2008
LPDES permit issuance date - October 7, 2008
LPDES permit expiration date - January 31, 2013

[NOTE: The hydrostatic testing wastewater discharges will be incorporated into the individual permit. Therefore, upon reissuance of the individual permit, the hydrostatic testing general permit will be terminated.]

LAR10F052 (Storm Water Construction)
LPDES permit effective date - October 1, 2004
LPDES permit issuance date - May 21, 2008
LPDES permit expiration date - September 30, 2009

C. Application received on September 25, 2008. Additional information received via e-mail correspondence on February 13, 2009, February 16, 2009, February 25, 2009, March 13, 2009, and March 17, 2009. Application Addendum received on October 8, 2008, October 17, 2008, and February 17, 2009.

V. Facility Information:

A. Location - 14342 Walker Kimbrough Road in Lacassine, Jefferson Davis Parish (Latitude 30°14'22", Longitude 92°56'25".

B. Applicant Activity -

According to the application, Louisiana Green Fuels, LLC, Lacassine Facility is an existing sugarcane mill and electricity generating facility which is also proposing to operate an ethanol plant which will include a fertilizer plant. The sugarcane mill will process sugarcane to produce syrup/molasses as a final product. The proposed ethanol plant will manufacture ethanol from syrup/molasses provided by the sugarcane mill. The electricity generating portion of the facility will operate the boiler and the electricity generating equipment to burn bagasse during the sugarcane processing season and afterwards to supply power to the facility and the local electrical grid. All process-related wastewater will be discharged from Outfalls 001, 003, and 004. All wastewater from the fertilizer plant will be recycled and reused in the plant (with the exception of the first-flush and post first-flush process area stormwater runoff).

All sanitary and laboratory wastewaters will be treated in the mechanical sewage treatment plant and land applied via a sprinkler system. Laboratory wastewaters will be generated from sugarcane processing Quality Assurance activities which will not include the use of chemical solvents.

C. Technology Basis - (40 CFR Chapter 1, Subchapter N/Parts 401-402, and 401, 405-415, and 417-471 have been adopted by reference at LAC 33:IX.4903)

Guideline	Reference
Louisiana Raw Cane Sugar	40 CFR 409, Subpart D
Raw Cane Sugar Processing	LAC 33:IX.707.D.5
Steam Electric Power Generating	40 CFR 423
Organic Chemicals, Plastics, and Synthetic Fibers (*1)	40 CFR 414, Subpart F

(*1) In accordance with 40 CFR 414, Subpart A [414.11(e)], these effluent guidelines do not apply to process wastewaters from the manufacture of organic chemical compounds solely by the extraction from plant and animal raw materials or by fermentation processes. Therefore, since this permittee uses syrup and molasses as the raw material in the manufacturing process to produce ethanol, this effluent guideline does not apply to this facility.

Other sources of technology based limits:
Current LPDES permit (effective March 1, 2007)
Similar outfall at an existing facility
LDEQ Stormwater Guidance, letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6)
TMDL Summary of the Lacassine Syrup Mill (finalized April 10, 2006)
Best Professional Judgement

D. Fee Rate -
1. Fee Rating Facility Type: Minor
2. Complexity Type: II - set using BPJ based on sugarcane mills and ethanol plants
3. Wastewater Type: II
4. SIC codes: 2061, 2869, and 4911

E. Continuous Facility Effluent Flow (Outfall 004) - Long Term Average, 0.597169 MGD

[NOTE: The discharges from this outfall will not flow continuously until start-up of operations at the ethanol plant (including the fertilizer plant). However, there will be intermittent flows from this outfall as a result of the permittee routing certain wastewaters from the sugarcane mill to the wastewater treatment plant associated with the ethanol plant prior to start-up of operations.] See Section VIII.K of this fact sheet.

VI. Receiving Waters:

STREAM - West Bayou Lacassine via West Bayou Lacassine Lateral #5

BASIN AND SUBSEGMENT - Mermentau River, Subsegment No. 050601

DESIGNATED USES - a. primary contact recreation
b. secondary contact recreation
c. fish and wildlife propagation
d. agriculture

VII. Outfall Information:

Outfall 001

A. Type of wastewater - sugarcane washwater (as needed), process condensate wastewater, non-contact cooling water, stormwater falling into the North Recycle Pond, discharges from the South Recycle Pond, and previously monitored discharges from Internal Outfalls 10A or 10B

B. Location - at the point of discharge from the southwest corner of the North Recycle Pond prior to combining with the waters of West Bayou Lacassine via West Bayou Lacassine Lateral #5 at Latitude 30°14'25", Longitude 92°56'23".

C. Treatment - treatment of these wastewaters consist of:
- aeration

D. Flow - Intermittent, Long Term Average, 2 MGD (the combined discharges from Outfalls 001, 003, and 004 shall not exceed 2 MGD)

E. Receiving waters - West Bayou Lacassine via West Bayou Lacassine Lateral #5

F. Basin and subsegment - Mermentau River Basin, Subsegment No. 050601

Internal Outfall 10A
(This internal outfall is applicable from the start-up of the sugarcane mill's operating season until the end of the sugarcane mill's operating season.)

A. Type of wastewater - low volume wastewaters (including demineralizer wastewater and other sources as defined by 40 CFR 423); chemical metal cleaning wastewater; non-chemical metal cleaning wastewater; maintenance wastewaters (including housekeeping wastewaters, floor drain wastewaters, firewater systems, eye wash and safety shower wastewaters, and air conditioning condensate); process area stormwater runoff; non-process area stormwater runoff; excess

cooling water from the cooling tower at the sugarcane mill; boiler blowdown; and cooling tower blowdown from the sugarcane mill

B. Location - at the point of discharge from the process sump located near the neutralization treatment tank prior to combining with the effluent of Outfall 001 in the North Recycle Pond at Latitude 30°14'24", Longitude 92°56'25".

C. Treatment - treatment of chemical and non-chemical metal cleaning wastewaters only consist of:
- neutralization

D. Flow - Intermittent, Long Term Average, 0.101 MGD

E. Receiving waters - Combines with the effluent of Outfall 001

F. Basin and subsegment - Mermentau River Basin, Subsegment No. 050601

Internal Outfall 10B
(This internal outfall is applicable from the end of the sugarcane mill's operating season until start-up of the sugarcane mill's operating season.)

A. Type of wastewater - low volume wastewaters (including demineralizer wastewater and other sources as defined by 40 CFR 423), non-process area stormwater runoff, boiler blowdown, excess cooling water from the cooling tower at the sugarcane mill, and minimal amounts of cooling tower blowdown from the sugarcane mill

B. Location - at the point of discharge from the process sump located near the neutralization treatment tank prior to combining with the effluent of Outfall 001 in the North Recycle Pond at Latitude 30°14'24", Longitude 92°56'25".

C. Treatment - none

D. Flow - Intermittent, Long Term Average, 0.101 MGD

E. Receiving waters - Combines with the effluent of Outfall 001

F. Basin and subsegment - Mermentau River Basin, Subsegment No. 050601

Outfall 002

A. Type of wastewater - non-process area stormwater runoff from the northeast side of the sugarcane mill

B. Location - at the point of discharge from the northeast side of the sugarcane mill by the North Recycle Pond prior to combining with the

waters of West Bayou Lacassine via West Bayou Lacassine Lateral #5 at Latitude 30°14'29", Longitude 92°56'23".

C. Treatment - none

D. Flow - Intermittent, Long Term Average, 0.045 MGD

E. Receiving waters - West Bayou Lacassine via West Bayou Lacassine Lateral #5

F. Basin and subsegment - Mermentau River Basin, Subsegment No. 050601

Outfall 003

A. Type of wastewater - sugarcane washwater (as needed), process condensate wastewater, non-contact cooling water, stormwater falling into the South Recycle Pond, discharges from the North Recycle Pond, and previously monitored discharges from Internal Outfalls 10A or 10B

B. Location - at the point of from the northwest corner of the South Recycle Pond prior to combining with the waters of West Bayou Lacassine via West Bayou Lacassine Lateral #5 at Latitude 30°14'24", Longitude 92°56'23".

C. Treatment - treatment of these wastewaters consist of:
- aeration

D. Flow - Intermittent, Long Term Average, 2 MGD (the combined discharges from Outfalls 001, 003, and 004 shall not exceed 2 MGD)

E. Receiving waters - West Bayou Lacassine via West Bayou Lacassine Lateral #5

F. Basin and subsegment - Mermentau River Basin, Subsegment No. 050601

Outfall 004

A. Type of wastewater - post first-flush process area stormwater runoff from the ethanol plant including the fertilizer plant, non-process area stormwater runoff (including uncontaminated stormwater falling on the non-process, light industrial areas on-site), stormwater from the detention pond, and previously monitored discharges from Internal Outfalls 104 and 204

B. Location - at the point of discharge from the southeast side of the detention pond prior to combining with the waters of West Bayou Lacassine via West Bayou Lacassine Lateral #5 at Latitude 30°14'20", Longitude 92°56'47".

C. Treatment - none

D. Flow - Continuous, Long Term Average, 0.597169 MGD (the combined discharges from Outfalls 001, 003, and 004 shall not exceed 2 MGD)

[NOTE: The discharges from this outfall will not flow continuously until start-up of operations at the ethanol plant (including the fertilizer plant). However, there will be intermittent flows from this outfall as a result of the permittee routing certain wastewaters from the sugarcane mill to the wastewater treatment plant associated with the ethanol plant prior to start-up of operations.] See Section VIII.K of this fact sheet.

E. Receiving waters - West Bayou Lacassine via West Bayou Lacassine Lateral #5

F. Basin and subsegment - Mermentau River Basin, Subsegment No. 050601

Internal Outfall 104

A. Type of wastewater - treated combined first-flush process area stormwater runoff from the ethanol plant including the fertilizer plant; non-process area stormwater runoff; process condensate wastewater; reverse osmosis backwash; process spent lees wastewater; process sealing wastewater; hydrostatic test wastewater; cooling tower blowdown; excess cooling water from the cooling tower at the ethanol plant; backwash softener; filter backwash; discharges from the North and South Recycle Ponds; boiler blowdown; and maintenance wastewaters (including steam trap condensate, fire fighting system water, and eye wash and safety shower wastewater)

B. Location - at the point of discharge from the southwest corner of the wastewater treatment plant prior to combining with the effluent of Outfall 004 at Latitude 30°14'23", Longitude 92°56'46".

C. Treatment - treatment of these wastewaters consist of:
- activated sludge

D. Flow - Continuous, Long Term Average, 0.140649 MGD

[NOTE: The discharges from this internal outfall will not flow continuously until start-up of operations at the ethanol plant (including the fertilizer plant). However, there will be intermittent flows from this internal outfall as a result of the permittee routing certain wastewaters from the sugarcane mill to the wastewater treatment plant associated with the ethanol plant prior to start-up of operations.] See Section VIII.K of this fact sheet.

E. Receiving waters - Combines with the effluent of Outfall 004

F. Basin and subsegment - Mermentau River Basin, Subsegment No. 050601

Internal Outfall 204

A. Type of wastewater - post first-flush process area stormwater runoff from the ethanol plant including the fertilizer plant, non-process area stormwater runoff, cooling tower blowdown, excess cooling water from the cooling tower at the ethanol plant, water softener backwash, and filter backwash

B. Location - at the point of discharge from the sump located near the northwest corner of the wastewater treatment plant prior to combining with the effluent of Outfall 004 at Latitude 30°14'25", Longitude 92°56'46".

C. Treatment - none

D. Flow - Intermittent, Long Term Average, 0.278192 MGD

E. Receiving waters - Combines with the effluent of Outfall 004

F. Basin and subsegment - Mermentau River Basin, Subsegment No. 050601

VIII. Proposed Permit Limits:

Summary of Proposed Changes From the Current LPDES Permit:

A. On or about October 8, 2008, this Office was notified by letter of a name change and transfer of ownership from Lake Charles Cane-Lacassine Mill, LLC to Louisiana Green Fuels, LLC, Lacassine Facility for only the individual LPDES permit issued to Lake Charles Cane-Lacassine Mill, LLC. All of the other environmental permits issued to Lake Charles Cane-Lacassine Mill, LLC will not be transferred and will remain under the current operator's name.

B. Outfall 001

The outfall description will be changed to read as follows: "sugarcane washwater (as needed), process condensate wastewater, non-contact cooling water, stormwater falling into the North Recycle Pond, discharges from the South Recycle Pond, and previously monitored discharges from Internal Outfalls 10A or 10B".

The outfall location description will be changed to read as follows: "at the point of discharge from the southwest corner of the North Recycle Pond prior to combining with the waters of West Bayou Lacassine via West Bayou Lacassine Lateral #5". The coordinates will be changed to reflect Latitude 30°14'25", Longitude 92°56'23"

instead of Latitude 30°14'22", Longitude 92°56'23" based on information provided in the 2008 Application.

The permittee requested that the seasonal monthly average limits for $CBOD_5$ be expressed as mass loading limits instead of concentration limits for the discharges from Outfalls 001, 003, and 004 (combined) based on the five scenarios provided in the 2008 Application. The Water Quality Modeling Section reviewed and evaluated this information and has recommended that the permittee be required to comply with the seasonal monthly average concentration limits for $CBOD_5$ based on the TMDL Summary (combined discharges from these outfalls shall not exceed 2 MGD) by determining the flow-weighted concentration value using flow and $CBOD_5$ sample data collected during the same sampling period from these outfalls. Therefore, the permittee will be required to monitor for $CBOD_5$ (monthly average) and report the result as a flow-weighted concentration value for these discharges on the DMR for Outfall 001 for compliance purposes.

A monthly average limit for flow will be established in the draft permit for Outfalls 001, 003, and 004 (combined) based on recommendations by the Water Quality Modeling Section. This determination is based on modeling projections which demonstrated that the permittee could discharge a $CBOD_5$ of 5 mg/L (summer) and 10 mg/L (winter) at a combined flow of 2 MGD or less and still meet the numerical criteria of the receiving stream. Therefore, the permittee will be required to monitor for flow (monthly average) during the same sampling period from these outfalls and report the result as an arithmetic sum of the daily discharges from these outfalls on the DMR for Outfall 001 for compliance purposes.

The daily maximum and monthly average mass limits for TSS will be established in the draft permit for the combined discharges from Outfalls 001 and 003. Therefore, the permittee will be required to monitor for TSS and report the results as an arithmetic sum of the mass discharges from these outfalls on the DMR for Outfall 001 for compliance purposes.

In accordance with the total annual TSS discharge limit of 0.94 lbs/day and similar outfalls at existing facilities, a reporting requirement will be added to the Part II Conditions that requires the permittee to report on an annual basis the total pounds of TSS discharged, the total number of days a discharge occurred, and the tons of gross cane ground during the preceding grinding season.

The monthly average limit for DO will be established in the draft permit for the combined discharges from Outfalls 001, 003, and 004 based on the TMDL Summary by determining the flow-weighted concentration value using flow and DO sample data collected during the same sampling period from these outfalls. Therefore, the

permittee will be required to monitor for DO (monthly average) and report the result as a flow-weighted concentration value for these discharges on the DMR for Outfall 001 for compliance purposes. Use of this methodology was requested by the permittee's consultant during a meeting on February 23, 2009, and was approved by the Water Quality Modeling Section to be incorporated into the draft permit.

A monitoring requirement for Total Phosphorus, Ammonia, Nitrate-Nitrite, and Total Kjeldahl Nitrogen will be added to the draft permit for data gathering purposes based on recommendations by the Water Quality Modeling Section in order to demonstrate that there will be no adverse impact on the receiving stream from the discharges at this outfall. The monitoring frequency for these parameters will be once per quarter.

C. Internal Outfall 101

This internal outfall will be changed to represent two separate internal outfalls (Internal Outfalls 10A and 10B) to correspond to the two operational scenarios that will occur at the sugarcane mill.

Internal Outfall 10A

The wastestreams at this outfall will be discharged from the start-up of the sugarcane mill's operating season until the end of the sugarcane mill's operating season. The discharges will include low volume wastewaters (including demineralizer wastewater and other sources as defined by 40 CFR 423); chemical metal cleaning wastewater; non-chemical metal cleaning wastewater; maintenance wastewaters (including housekeeping wastewaters, floor drain wastewaters, firewater systems, eye wash and safety shower wastewaters, and air conditioning condensate); process area stormwater runoff; non-process area stormwater runoff; excess cooling water from the cooling tower at the sugarcane mill; boiler blowdown; and cooling tower blowdown from the sugarcane mill. The limits and monitoring requirements will be established by BPJ based on the LDEQ Stormwater Guidance and the requirements previously established at Internal Outfall 101 in the current permit since the discharges are similar in nature. The permittee requested that the monthly average limit for TSS be removed from the draft permit since the facility does not generate electricity primarily for distribution or sale. The permittee also stated that it is very difficult to comply with this limit due to the large amount of process area stormwater that falls on the high traffic areas (trucks hauling sugarcane and general vehicle traffic) which drain to this internal outfall. Therefore, this Office has decided to remove the TSS limits at this internal outfall since TSS limits will be established at the external outfall (Outfall 001).

The outfall location description for this internal outfall will be changed to read as follows: "at the point of discharge from the process sump located near the neutralization treatment tank prior to combining with the effluent of Outfall 001 in the North Recycle Pond". Only chemical and non-chemical metal cleaning wastewaters will be sent to the neutralization tank. All other wastewaters will be sent to the process sump prior to discharging to this internal outfall.

Internal Outfall 10B

The wastestreams at this outfall will be discharged from the end of the sugarcane mill's operating season until the start-up of the sugarcane mill's operating season. The discharges will include low volume wastewaters (including demineralizer wastewater and other sources as defined by 40 CFR 423), non-process area stormwater runoff, boiler blowdown, excess cooling water from the cooling tower at the sugarcane mill, and minimal amounts of cooling tower blowdown from the sugarcane mill. The limits will be established by BPJ using the LDEQ Stormwater Guidance and the current permit. The monitoring frequency will be once per month.

The outfall location description for this internal outfall will read as follows: "at the point of discharge from the process sump located near the neutralization treatment tank prior to combining with the effluent of Outfall 001 in the North Recycle Pond".

D. Internal Outfall 201

Cooling tower blowdown is currently permitted at this outfall. However, this wastestream will be re-routed to be recycled back into the process or discharged via Internal Outfalls 10A, 10B, or 104. Therefore, this internal outfall will be removed from the draft permit.

E. Outfall 002

The wastestream description for this outfall will be changed to read as: "non-process area stormwater runoff from the northeast side of the sugarcane mill".

The outfall location description will changed to read as follows: "at the point of discharge from the northeast side of the sugarcane mill by the North Recycle Pond prior to combining with the waters of West Bayou Lacassine via West Bayou Lacassine Lateral #5". The coordinates will be changed to reflect Latitude 30°14'29", Longitude 92°56'23" instead of Latitude 30°14'20", Longitude 92°56'23" based on information provided in the 2008 Application.

F. Outfall 003

This outfall will be added into the draft permit. The outfall wastestream description will include sugarcane washwater (as needed), process condensate wastewater, non-contact cooling water, stormwater runoff falling into the South Recycle Pond, discharges from the North Recycle Pond, and previously monitored discharges from Internal Outfalls 10A or 10B. The limits and monitoring requirements will be established by BPJ based on the requirements previously established at Outfall 001 in the current permit since the discharges are similar in nature, the TMDL Summary, and recommendations from the Water Quality Modeling Section.

G. Outfall 004

This outfall will be added into the draft permit. The outfall wastestream description will include post first-flush process area stormwater runoff from the ethanol plant including the fertilizer plant, non-process area stormwater runoff (including uncontaminated stormwater falling on the non-process, light industrial areas on-site), stormwater from the detention pond, and previously monitored discharges from Internal Outfalls 104 and 204. The limits and monitoring requirements will be established by BPJ using the current permit, LDEQ Stormwater Guidance, the TMDL Summary, and recommendations from the Water Quality Modeling Section.

H. Internal Outfall 104

This internal outfall will be added into the draft permit. The outfall wastestream description will include treated combined first-flush process area stormwater runoff from the ethanol plant including the fertilizer plant; non-process area stormwater runoff; process condensate wastewater; reverse osmosis backwash; process spent lees wastewater; process sealing wastewater; hydrostatic test wastewater; cooling tower blowdown; excess cooling water from the cooling tower at the ethanol plant; backwash softener; filter backwash; discharges from the North and South Recycle Ponds; boiler blowdown; and maintenance wastewaters (including steam trap condensate, fire fighting system water, and eye wash and safety shower wastewater). The limits and monitoring requirements will be established by BPJ using 40 CFR 414, Subpart F (414.64), the LDEQ Stormwater Guidance, and similar outfalls at existing facilities.

I. Internal Outfall 204

This internal outfall will be added into the draft permit. The outfall wastestream description will include post first-flush process area stormwater runoff from the ethanol plant including the fertilizer plant, non-process area stormwater runoff, cooling tower

blowdown, excess cooling water from the cooling tower at the ethanol plant, water softener backwash, and filter backwash. The limits and monitoring requirements will be established by BPJ using the LDEQ Stormwater Guidance and similar outfalls at existing facilities.

J. The facility discharges to a Water Quality Act 303(d) stream. Therefore, a reopener clause will be added to Part II of the draft permit in the event that the permit requires reassessment regarding 303(d) status resulting in incorporation of the results of any modifications to the Total Maximum Daily Load (TMDL) Summary for the receiving waterbody.

K. Updated Part II conditions for stormwater discharges associated with industrial activities have been established in the draft permit. In addition to the requirements specified at Part II.R.3, the permittee requested that language be added to allow the permittee to review and update the Storm Water Pollution Prevention Plan (SWP3) as follows: (1) six (6) months after the commencement of discharges at Outfalls 004 and 104 and (2) six (6) months after start-up of operations at the ethanol plant (including the fertilizer plant) and the commencement of any discharges from Internal Outfall 204. Under (1) above, the permittee has indicated that intermittent discharges may occur from Outfalls 004 and 104 prior to start-up of operations at the ethanol plant (including the fertilizer plant) due to the following: (a) discharges of cooling tower blowdown and boiler blowdown from Internal Outfalls 10A and 10B that may be sent to the wastewater treatment plant which will ultimately discharge through Outfalls 004 and 104; (b) discharges of wastewater from Outfalls 001 and 003 that may be sent to the wastewater treatment plant which will ultimately discharge through Outfalls 004 and 104; and (c) discharges of hydrostatic test wastewater from the sugarcane mill's operations that may be sent to the wastewater treatment plant which will ultimately discharge through Outfalls 004 and 104. This Office has decided to grant this request.

L. The permittee requested that language be included in the draft permit that allows the submittal of DMRs for Outfalls 004, 104, and 204 to be suspended during the period of inactivity that may occur if the permit is issued prior to commencement of any discharges at Outfalls 004 and 104 and prior to the start-up of operations at the ethanol plant (including the fertilizer plant) and the commencement of any discharges at Internal Outfall 204. This Office has decided to grant this request.

M. The permittee requested that the draft permit include language indicating that upon written notification and submittal of a Best Management Practices (BMP) plan for the land application of vinasse and ash slurry approved by the Department of Agriculture that the permittee be allowed to conduct land application activities without

modifying the permit. At this time, this Office has decided to deny this request pending the receipt and review of the BMPs associated with this activity.

N. A Part II provision was included in the current permit specifying that there shall be no discharge of any of the 126 priority pollutants associated with the chemicals added for cooling tower maintenance, except Total Chromium and Total Zinc. However, this provision will be removed from the draft permit based on information provided in the 2008 Application certifying that none of the treatment chemicals used as a scale inhibitor and/or biocide will contain any of the 126 priority pollutants including Total Chromium and Total Zinc.

IX. Permit Limit Rationale:

The following section sets forth the principal facts and the significant factual, legal, methodological, and policy questions considered in preparing the draft permit.

1. Outfall 001 - sugarcane washwater (as needed), process condensate wastewater, non-contact cooling water, stormwater falling into the North Recycle Pond, discharges from the South Recycle Pond, and previously monitored discharges from Internal Outfalls 10A or 10B

PARAMETER(S)	MASS, LBS/DAY unless otherwise stated		CONCENTRATION, MG/L unless otherwise stated		MEASUREMENT FREQUENCY (*1)
	MONTHLY AVERAGE	DAILY MAXIMUM	MONTHLY AVERAGE	DAILY MAXIMUM	
Flow, MGD	2 (*2)	Report	---	---	Continuous
$CBOD_5$ (March - November)	---	---	5 (*3)	15	1/week
$CBOD_5$ (December - February)	---	---	10 (*3)	15	1/week
TSS	400 (*4)	1,200 (*4)	---	---	1/week
Dissolved Oxygen	---	---	5 (Min) (*5)	3(Min)	1/week
Total Phosphorus	---	---	---	Report	1/quarter
Ammonia	---	---	---	Report	1/quarter
Nitrate-Nitrite	---	---	---	Report	1/quarter

PARAMETER(S)	MASS, LBS/DAY unless otherwise stated		CONCENTRATION, MG/L unless otherwise stated		MEASUREMENT FREQUENCY (*1)
	MONTHLY AVERAGE	DAILY MAXIMUM	MONTHLY AVERAGE	DAILY MAXIMUM	
Total Kjeldahl Nitrogen	---	---	---	Report	1/quarter
pH (Standard Units)	---	---	6.0 (Min)	9.0 (Max)	1/week

(*1) When discharging.

(*2) The permittee shall monitor flow at Outfalls 001, 003, and 004. The arithmetic sum of the daily discharges from these outfalls shall not exceed the monthly average flow limit of 2 MGD. For the purpose of compliance, the permittee shall report the results on the DMR for Outfall 001.

(*3) The permittee shall monitor $CBOD_5$ at Outfalls 001, 003, and 004. The flow-weighted concentration value for the combined discharges from these outfalls shall not exceed the monthly average limit of 5 mg/L for the summer season (March - November) and 10 mg/L for the winter season (December - February). For the purpose of compliance, the permittee shall report the results on the DMR for Outfall 001.

(*4) The permittee shall monitor TSS at Outfalls 001 and 003. The arithmetic sum of the daily mass discharges from these outfalls shall not exceed the daily maximum limit of 1200 lbs/day and the monthly average limit of 400 lbs/day. For the purpose of compliance, the permittee shall report the results on the DMR for Outfall 001.

(*5) The permittee shall monitor DO at Outfalls 001, 003, and 004. The flow-weighted concentration value for the combined discharges from these outfalls shall not exceed the monthly average limit of 5 mg/L. For the purpose of compliance, the permittee shall report the results on the DMR for Outfall 001.

Site-Specific Consideration(s)

Flow - The daily maximum monitoring requirement is established in accordance with LAC 33:IX.2707.I.1.b and the current permit. A monthly average flow limit of 2 MGD will be established in the draft permit for Outfalls 001, 003, and 004 (combined) based on recommendations by the Water Quality Modeling Section. This determination is based on modeling projections which demonstrated that the permittee could discharge a $CBOD_5$

of 5 mg/L (summer) and 10 mg/L (winter) at a combined flow of 2 MGD or less and still meet the numerical criteria of the receiving stream. Therefore, the permittee will be required to monitor for flow (monthly average) during the same sampling period from these outfalls and report the result as an arithmetic sum of the daily discharges from these outfalls on the DMR for Outfall 001 for compliance purposes.

$CBOD_5$ - The daily maximum concentration limit is based on the Water Regulations cited at LAC 33:IX.707.D.5.c and the current permit. The seasonal monthly average, water quality-based concentration limits are consistent with the TMDL Summary and current permit. However, based on recommendations by the Water Quality Modeling Section, the permittee will be required to comply with these limits (combined discharges from these outfalls shall not exceed 2 MGD) by determining the flow-weighted concentration value using flow (in MGD) and $CBOD_5$ (in mg/L) sample data collected during the same sampling period from these outfalls.

The formula is provided below:

$$C_T = \frac{C_1Q_1 + C_3Q_3 + C_4Q_4}{Q_1 + Q_3 + Q_4}$$

Where C_T = flow-weighted concentration value of the combined discharges
C_1= concentration value for Outfall 001
Q_1= flow for Outfall 001
C_3= concentration value for Outfall 003
Q_3= flow for Outfall 003
C_4= concentration value for Outfall 004
Q_4= flow for Outfall 004

The permittee shall report the result (monthly average) as a flow-weighted concentration value for these discharges on the DMR for Outfall 001 for compliance purposes.

TSS - limits are established based on LAC 33:IX.707.D.5.b using a production rate of 5,000 tons/day. These requirements are consistent with the current permit; however, the limits for TSS will be established in the draft permit for the combined discharges from Outfalls 001 and 003. Therefore, the permittee will be required to monitor for TSS and report the results as an arithmetic sum of the mass discharges from these outfalls on the DMR for Outfall 001 for compliance purposes. The calculations are provided below:

400 lbs/day (monthly average) = (0.080 lbs/ton)(5,000 tons/day)
1,200 lbs/day (daily maximum) = (0.240 lbs/ton)(5,000 tons/day)

In addition, the total pounds of TSS discharged during any calendar year shall not exceed 0.94 lbs/ton multiplied by the gross tons of cane ground

during the preceding grinding season in accordance with 40 CFR 409, Subpart D [409.42(b)].

Dissolved Oxygen - The daily maximum concentration limit is based on the Water Regulations cited at LAC 33:IX.707.D.5.c and the current permit. The monthly average limit for DO will be established in the draft permit for the combined discharges from Outfalls 001, 003, and 004 based on the TMDL Summary by determining the flow-weighted concentration value using flow (in MGD) and DO (in mg/L) sample data collected during the same sampling period from these outfalls. Therefore, the permittee will be required to monitor for DO (monthly average) and report the result as a flow-weighted concentration value for these discharges on the DMR for Outfall 001 for compliance purposes. [NOTE: This DO limit is established as the lowest allowable average of daily discharges over a calendar month.]

The formula is provided below:

$$C_T = \frac{C_1Q_1 + C_3Q_3 + C_4Q_4}{Q_1 + Q_3 + Q_4}$$

Where C_T = flow-weighted concentration value of the combined discharges
C_1= concentration value for Outfall 001
Q_1= flow for Outfall 001
C_3= concentration value for Outfall 003
Q_3= flow for Outfall 003
C_4= concentration value for Outfall 004
Q_4= flow for Outfall 004

The permittee shall report the result (monthly average) as a flow-weighted concentration value for these discharges on the DMR for Outfall 001 for compliance purposes.

Total Phosphorus, Ammonia, Nitrate-Nitrite, and Total Kjeldahl Nitrogen - A monitoring requirement for these parameters will be established for data gathering purposes based on recommendations by the Water Quality Modeling Section in order to demonstrate that there will be no adverse impact on the receiving stream from these discharges.

pH - limits are established in accordance with LAC 33:IX.707.D.5.b and LAC 33:IX.1113.C.1. This requirement is consistent with the current permit.

2. Internal Outfall 10A - low volume wastewaters (including demineralizer wastewater and other sources as defined by 40 CFR 423); chemical metal cleaning wastewater; non-chemical metal cleaning wastewater; maintenance wastewaters (including housekeeping wastewaters, floor drain wastewaters, firewater systems, eye wash and safety shower wastewaters, and air conditioning condensate); process area stormwater runoff; non-process area stormwater runoff; excess cooling water from the

cooling tower at the sugarcane mill; boiler blowdown; and cooling tower blowdown from the sugarcane mill

PARAMETER(S)	MASS, LBS/DAY unless otherwise stated		CONCENTRATION, MG/L unless otherwise stated		MEASUREMENT FREQUENCY (*1)
	MONTHLY AVERAGE	DAILY MAXIMUM	MONTHLY AVERAGE	DAILY MAXIMUM	
Flow, MGD	Report	Report	---	---	1/week
TOC	---	---	---	50	1/week
Oil and Grease	---	---	15	20	1/week
Total Copper (*2)	---	---	1	1	1/week
Total Iron (*2)	---	---	1	1	1/week

(*1) When discharging.

(*2) Monitoring of Total Copper and Total Iron is only required when discharging metal cleaning wastewaters.

Site-Specific Consideration(s)

Flow - monitoring requirements are established in accordance with LAC 33:IX.2707.I.1.b and by BPJ based on the requirements previously established at Internal 101 in the current permit since the discharges are similar in nature.

TOC - limit is established by BPJ using the LDEQ Stormwater Guidance.

Oil and Grease - limits are established by BPJ using 40 CFR 423.15(c) and (m) and the requirements previously established at Internal 101 in the current permit since the discharges are similar in nature.

Total Copper and Total Iron - limits are established by BPJ using 40 CFR 423.15(d) and (m) and the requirements previously established at Internal 101 in the current permit since the discharges are similar in nature.

There shall be no discharge of polychlorinated biphenyls (PCBs). The minimum quantification level (MQL) for PCBs is 1.0 ug/L. If any analytical test result for PCBs is less than the MQL, then a value of zero (0) shall be used for the Discharge Monitoring Report (DMR) calculations and reporting requirements.

3. Internal Outfall 10B - low volume wastewaters (including demineralizer wastewater and other sources as defined by 40 CFR 423), non-process area stormwater runoff, boiler blowdown, excess cooling water from the cooling tower at the sugarcane mill, and minimal amounts of cooling tower blowdown from the sugarcane mill

PARAMETER(S)	MASS, LBS/DAY unless otherwise stated		CONCENTRATION, MG/L unless otherwise stated		MEASUREMENT FREQUENCY (*1)
	MONTHLY AVERAGE	DAILY MAXIMUM	MONTHLY AVERAGE	DAILY MAXIMUM	
Flow, MGD	Report	Report	---	---	1/month
TOC	---	---	---	50	1/month
Oil & Grease	---	---	15	20	1/month

(*1) When discharging.

Site-Specific Consideration(s)

Flow - monitoring requirements are established in accordance with LAC 33:IX.2707.I.1.b.

TOC - limit is established by BPJ using the LDEQ Stormwater Guidance.

Oil and Grease - limits are established by BPJ using 40 CFR 423.15(c) and (m) and the requirements previously established at Internal 101 in the current permit.

4. Outfall 002 - non-process area stormwater runoff from the northeast side of the sugarcane mill

PARAMETER(S)	MASS, LBS/DAY unless otherwise stated		CONCENTRATION, MG/L unless otherwise stated		MEASUREMENT FREQUENCY (*1)
	MONTHLY AVERAGE	DAILY MAXIMUM	MONTHLY AVERAGE	DAILY MAXIMUM	
Flow, MGD	Report	Report	---	---	1/quarter
TOC	---	---	---	50	1/quarter
Oil & Grease	---	---	---	15	1/quarter
pH (Standard Units)	---	---	6.0 (Min.)	9.0 (Max.)	1/quarter

(*1) When discharging.

Site-Specific Consideration(s)

Flow - monitoring requirements are established in accordance with LAC 33:IX.2707.I.1.b. These requirements are consistent with the current permit.

TOC, Oil and Grease, and pH - limits are established by BPJ using LDEQ Stormwater Guidance. These requirements are consistent with the current permit.

5. Outfall 003 - sugarcane washwater (as needed), process condensate wastewater, non-contact cooling water, stormwater falling into the South Recycle Pond, discharges from the North Recycle Pond, and previously monitored discharges from Internal Outfalls 10A or 10B

PARAMETER(S)	MASS, LBS/DAY unless otherwise stated		CONCENTRATION, MG/L unless otherwise stated		MEASUREMENT FREQUENCY (*1)
	MONTHLY AVERAGE	DAILY MAXIMUM	MONTHLY AVERAGE	DAILY MAXIMUM	
Flow, MGD	(*2)	Report	---	---	Continuous
$CBOD_5$ (March - November)	---	---	(*3)	15	1/week
$CBOD_5$ (December - February)	---	---	(*3)	15	1/week
TSS	(*4)	(*4)	---	---	1/week
Dissolved Oxygen	---	---	(*5)	3(Min)	1/week
Total Phosphorus	---	---	---	Report	1/quarter
Ammonia	---	---	---	Report	1/quarter
Nitrate-Nitrite	---	---	---	Report	1/quarter
Total Kjeldahl Nitrogen	---	---	---	Report	1/quarter
pH (Standard Units)	---	---	6.0 (Min)	9.0 (Max)	1/week

(*1) When discharging.

(*2) The permittee shall monitor flow at Outfalls 001, 003, and 004. The arithmetic sum of the daily discharges from these outfalls shall not exceed the monthly average flow limit of 2 MGD. For the purpose of

compliance, the permittee shall report the results on the DMR for Outfall 001.

(*3) The permittee shall monitor $CBOD_5$ at Outfalls 001, 003, and 004. The flow-weighted concentration value for the combined discharges from these outfalls shall not exceed the monthly average limit of 5 mg/L for the summer season (March - November) and 10 mg/L for the winter season (December - February). For the purpose of compliance, the permittee shall report the results on the DMR for Outfall 001.

(*4) The permittee shall monitor TSS at Outfalls 001 and 003. The arithmetic sum of the daily mass discharges from these outfalls shall not exceed the daily maximum limit of 1200 lbs/day and the monthly average limit of 400 lbs/day. For the purpose of compliance, the permittee shall report the results on the DMR for Outfall 001.

(*5) The permittee shall monitor DO at Outfalls 001, 003, and 004. The flow-weighted concentration value for the combined discharges from these outfalls shall not exceed the monthly average limit of 5 mg/L. For the purpose of compliance, the permittee shall report the results on the DMR for Outfall 001.

Site-Specific Consideration(s)

Flow - The daily maximum monitoring requirement is established in accordance with LAC 33:IX.2707.I.1.b and a similar outfall at this facility (Outfall 001). A monthly average flow limit of 2 MGD will be established in the draft permit for Outfalls 001, 003, and 004 (combined) based on recommendations by the Water Quality Modeling Section. This determination is based on modeling projections which demonstrated that the permittee could discharge a $CBOD_5$ of 5 mg/L (summer) and 10 mg/L (winter) at a combined flow of 2 MGD or less and still meet the numerical criteria of the receiving stream. Therefore, the permittee will be required to monitor for flow (monthly average) during the same sampling period from these outfalls and report the result as an arithmetic sum of the daily discharges from these outfalls on the DMR for Outfall 001 for compliance purposes.

$CBOD_5$ - The daily maximum concentration limit is based on the Water Regulations cited at LAC 33:IX.707.D.5.c and a similar outfall at this facility (Outfall 001). The seasonal monthly average, water quality-based concentration limits are established by BPJ based on the TMDL Summary and a similar outfall at this facility (Outfall 001). However, based on recommendations by the Water Quality Modeling Section, the permittee will be required to comply with these limits (combined discharges from these outfalls shall not exceed 2 MGD) by determining the flow-weighted concentration value using flow (in MGD) and $CBOD_5$ (in mg/L) sample data collected during the same sampling period from these outfalls.

The formula is provided below:

$$C_T = \frac{C_1Q_1 + C_3Q_3 + C_4Q_4}{Q_1 + Q_3 + Q_4}$$

Where C_T = flow-weighted concentration value of the combined discharges
C_1= concentration value for Outfall 001
Q_1= flow for Outfall 001
C_3= concentration value for Outfall 003
Q_3= flow for Outfall 003
C_4= concentration value for Outfall 004
Q_4= flow for Outfall 004

The permittee shall report the result (monthly average) as a flow-weighted concentration value for these discharges on the DMR for Outfall 001 for compliance purposes.

TSS - limits are established based on LAC 33:IX.707.D.5.b using a production rate of 5,000 tons/day. These requirements are consistent with a similar outfall at this facility (Outfall 001); however, the limits for TSS will be established in the draft permit for the combined discharges from Outfalls 001 and 003. Therefore, the permittee will be required to monitor for TSS and report the results as an arithmetic sum of the mass discharges from these outfalls on the DMR for Outfall 001 for compliance purposes. The calculations are provided below:

400 lbs/day (monthly average) = (0.080 lbs/ton)(5,000 tons/day)
1,200 lbs/day (daily maximum) = (0.240 lbs/ton)(5,000 tons/day)

In addition, the total pounds of TSS discharged during any calendar year shall not exceed 0.94 lbs/ton multiplied by the gross tons of cane ground during the preceding grinding season in accordance with 40 CFR 409, Subpart D [409.42(b)].

Dissolved Oxygen - The daily maximum concentration limit is based on the Water Regulations cited at LAC 33:IX.707.D.5.c and a similar outfall at this facility (Outfall 001). The monthly average limit for DO will be established in the draft permit for the combined discharges from Outfalls 001, 003, and 004 based on the TMDL Summary by determining the flow-weighted concentration value using flow (in MGD) and DO (in mg/L) sample data collected during the same sampling period from these outfalls. Therefore, the permittee will be required to monitor for DO (monthly average) and report the result as a flow-weighted concentration value for these discharges on the DMR for Outfall 001 for compliance purposes. [NOTE: This DO limit is established as the lowest allowable average of daily discharges over a calendar month.]

The formula is provided below:

$$C_T = \frac{C_1Q_1 + C_3Q_3 + C_4Q_4}{Q_1 + Q_3 + Q_4}$$

Where C_T = flow-weighted concentration value of the combined discharges
C_1= concentration value for Outfall 001
Q_1= flow for Outfall 001
C_3= concentration value for Outfall 003
Q_3= flow for Outfall 003
C_4= concentration value for Outfall 004
Q_4= flow for Outfall 004

The permittee shall report the result (monthly average) as a flow-weighted concentration value for these discharges on the DMR for Outfall 001 for compliance purposes.

Total Phosphorus, Ammonia, Nitrate-Nitrite, and Total Kjeldahl Nitrogen - A monitoring requirement for these parameters will be established for data gathering purposes based on recommendations by the Water Quality Modeling Section in order to demonstrate that there will be no adverse impact on the receiving stream from the discharges at this outfall.

pH - limits are established in accordance with LAC 33:IX.707.D.5.b and LAC 33:IX.1113.C.1 and a similar outfall at this facility (Outfall 001).

6. Outfall 004 - post first-flush process area stormwater runoff from the ethanol plant including the fertilizer plant, non-process area stormwater runoff (including uncontaminated stormwater falling on the non-process, light industrial areas on-site), stormwater from the detention pond, and previously monitored discharges from Internal Outfalls 104 and 204

PARAMETER(S)	MASS, LBS/DAY (unless otherwise stated)		CONCENTRATION, MG/L (unless otherwise stated)		MEASUREMENT FREQUENCY (*1)
	MONTHLY AVERAGE	DAILY MAXIMUM	MONTHLY AVERAGE	DAILY MAXIMUM	
Flow, MGD	(*2)	Report	---	---	Continuous
$CBOD_5$ (March - November)	---	---	(*3)	---	1/week
$CBOD_5$ (December - February)	---	---	(*3)	---	1/week

PARAMETER(S)	MASS, LBS/DAY unless otherwise stated		CONCENTRATION, MG/L unless otherwise stated		MEASUREMENT FREQUENCY (*1)
	MONTHLY AVERAGE	DAILY MAXIMUM	MONTHLY AVERAGE	DAILY MAXIMUM	
TOC	---	---	---	50	1/month
Oil and Grease	---	---		15	1/month
Dissolved Oxygen	---	---	(*4)	---	1/week
Total Phosphorus	---	---	---	Report	1/quarter
Ammonia	---	---	---	Report	1/quarter
Nitrate-Nitrite	---	---	---	Report	1/quarter
Total Kjeldahl Nitrogen	---	---	---	Report	1/quarter
pH (Standard Units)	---	---	6.0 (Min)	9.0 (Max)	1/month

(*1) When discharging. [NOTE: Intermittent flows may be discharged from this outfall prior to start-up of operations at the ethanol plant (including the fertilizer plant).] See Section VIII.K of the fact sheet.

(*2) The permittee shall monitor flow at Outfalls 001, 003, and 004. The arithmetic sum of the daily discharges from these outfalls shall not exceed the monthly average flow limit of 2 MGD. For the purpose of compliance, the permittee shall report the results on the DMR for Outfall 001.

(*3) The permittee shall monitor $CBOD_5$ at Outfalls 001, 003, and 004. The flow-weighted concentration value for the combined discharges from these outfalls shall not exceed the monthly average limit of 5 mg/L for the summer season (March - November) and 10 mg/L for the winter season (December - February). For the purpose of compliance, the permittee shall report the results on the DMR for Outfall 001.

(*4) The permittee shall monitor DO at Outfalls 001, 003, and 004. The flow-weighted concentration value for the combined discharges from these outfalls shall not exceed the monthly average limit of 5 mg/L. For the purpose of compliance, the permittee shall report the results on the DMR for Outfall 001.

Site-Specific Consideration(s)

Flow - The daily maximum monitoring requirement is established in accordance with LAC 33:IX.2707.I.1.b. A monthly average flow limit of 2 MGD will be established in the draft permit for Outfalls 001, 003, and 004 (combined) based on recommendations by the Water Quality Modeling Section. This determination is based on modeling projections which demonstrated that the permittee could discharge a $CBOD_5$ of 5 mg/L (summer) and 10 mg/L (winter) at a combined flow of 2 MGD or less and still meet the numerical criteria of the receiving stream. Therefore, the permittee will be required to monitor for flow (monthly average) during the same sampling period from these outfalls and report the result as an arithmetic sum of the daily discharges from these outfalls on the DMR for Outfall 001 for compliance purposes.

$CBOD_5$ - The seasonal monthly average, water quality-based concentration limits are established by BPJ based on the TMDL Summary since the discharges from this outfall contain process-related wastewater. However, based on recommendations by the Water Quality Modeling Section, the permittee will be required to comply with these limits (combined discharges from these outfalls shall not exceed 2 MGD) by determining the flow-weighted concentration value using flow (in MGD) and $CBOD_5$ (in mg/L) sample data collected during the same sampling period from these outfalls.

The formula is provided below:

$$C_T = \frac{C_1Q_1 + C_3Q_3 + C_4Q_4}{Q_1 + Q_3 + Q_4}$$

Where C_T = flow-weighted concentration value of the combined discharges
C_1= concentration value for Outfall 001
Q_1= flow for Outfall 001
C_3= concentration value for Outfall 003
Q_3= flow for Outfall 003
C_4= concentration value for Outfall 004
Q_4= flow for Outfall 004

The permittee shall report the result (monthly average) as a flow-weighted concentration value for these discharges on the DMR for Outfall 001 for compliance purposes.

TOC and Oil and Grease - limits are established by BPJ using the LDEQ Stormwater Guidance.

Dissolved Oxygen - The monthly average limit for DO will be established in the draft permit for the combined discharges from Outfalls 001, 003, and 004 based on the TMDL Summary by determining the flow-weighted concentration value using flow (in MGD) and DO (in mg/L) sample data collected during the same sampling period from these outfalls. Therefore,

the permittee will be required to monitor for DO (monthly average) and report the result as a flow-weighted concentration value for these discharges on the DMR for Outfall 001 for compliance purposes. [NOTE: This DO limit is established as the lowest allowable average of daily discharges over a calendar month.]

The formula is provided below:

$$C_T = \frac{C_1Q_1 + C_3Q_3 + C_4Q_4}{Q_1 + Q_3 + Q_4}$$

Where C_T = flow-weighted concentration value of the combined discharges
C_1= concentration value for Outfall 001
Q_1= flow for Outfall 001
C_3= concentration value for Outfall 003
Q_3= flow for Outfall 003
C_4= concentration value for Outfall 004
Q_4= flow for Outfall 004

The permittee shall report the result (monthly average) as a flow-weighted concentration value for these discharges on the DMR for Outfall 001 for compliance purposes.

Total Phosphorus, Ammonia, Nitrate-Nitrite, and Total Kjeldahl Nitrogen - A monitoring requirement for these parameters will be established for data gathering purposes based on recommendations by the Water Quality Modeling Section to determine if nitrogenous constituents will be discharged at a level that could cause an adverse impact on the receiving stream.

pH - limits are established in accordance with LAC 33:IX.1113.C.1.

7. Internal Outfall 104 - treated combined first-flush process area stormwater runoff from the ethanol plant including the fertilizer plant (*2); non-process area stormwater runoff; process condensate wastewater; reverse osmosis backwash; process spent lees wastewater; process sealing wastewater; hydrostatic test wastewater; cooling tower blowdown; excess cooling water from the cooling tower at the ethanol plant; backwash softener; filter backwash; discharges from the North and South Recycle Ponds; boiler blowdown; and maintenance wastewaters (including steam trap condensate, fire fighting system water, and eye wash and safety shower wastewater)

PARAMETER(S)	MASS, LBS/DAY unless otherwise stated		CONCENTRATION, MG/L unless otherwise stated		MEASUREMENT FREQUENCY (*1)
	MONTHLY AVERAGE	DAILY MAXIMUM	MONTHLY AVERAGE	DAILY MAXIMUM	
Flow, MGD	Report	Report	---	---	Continuous
TOC	---	---	---	50	1/month
Oil and Grease	---	---	---	15	1/month
TSS	---	---	46	149	1/month

(*1) When discharging. [NOTE: Intermittent flows may be discharged from this outfall prior to start-up of operations at the ethanol plant (including the fertilizer plant).] See Section VIII.K of the fact sheet.

(*2) First-Flush stormwater runoff shall be defined as the first 1-inch of precipitation to fall on the ethanol plant (including the fertilizer plant). The remaining stormwater (post first-flush stormwater runoff and any uncontaminated stormwater falling on the non-process, light industrial areas on-site) will be diverted directly to Outfall 004.

Site-Specific Consideration(s)

Flow - monitoring requirements are established in accordance with LAC 33:IX.2707.I.1.b.

TOC and Oil and Grease - limits are established by BPJ using the LDEQ Stormwater Guidance.

TSS - limits are established by BPJ based on 40 CFR 414, Subpart F (414.64) and similar outfalls at existing facilities since the permittee discharges process-related wastewaters.

8. Internal Outfall 204 - post first-flush process area stormwater runoff from the ethanol plant including the fertilizer plant, non-process area stormwater runoff, cooling tower blowdown, excess cooling water from the cooling tower at the ethanol plant, water softener backwash, and filter backwash

PARAMETER(S)	MASS, LBS/DAY unless otherwise stated		CONCENTRATION, MG/L unless otherwise stated		MEASUREMENT FREQUENCY (*1)
	MONTHLY AVERAGE	DAILY MAXIMUM	MONTHLY AVERAGE	DAILY MAXIMUM	
Flow, MGD	Report	Report	---	---	1/month
TOC	---	---	---	50	1/month
Oil and Grease	---	---	---	15	1/month

(*1) When discharging.

Site-Specific Consideration(s)

Flow - monitoring requirements are established in accordance with LAC 33:IX.2707.I.1.b.

TOC and Oil and Grease - limits are established by BPJ using the LDEQ Stormwater Guidance.

STORM WATER POLLUTION PREVENTION PLAN (SWP3) REQUIREMENTS

In accordance with LAC 33:IX.2707.I.3 and 4 [40 CFR 122.44(I)(3) and (4)], a Part II condition is proposed for applicability to all storm water discharges from the facility, either through permitted outfalls or through outfalls which are not listed in the permit or as sheet flow. **For first time permit issuance**, the Part II condition requires a Storm Water Pollution Prevention Plan (SWP3) within six (6) months of the effective date of the final permit. **For renewal permit issuance**, the Part II condition requires that the Storm Water Pollution Prevention Plan (SWP3) be reviewed and updated, if necessary, within six (6) months of the effective date of the final permit. If the permittee maintains other plans that contain duplicative information, those plans could be incorporated by reference to the SWP3. Examples of these type plans include, but are not limited to: Spill Prevention Control and Countermeasures Plan (SPCC), Best Management Plan (BMP), Response Plans, etc. The conditions will be found in the draft permit. Including Best Management Practice (BMP) controls in the form of a SWP3 is consistent with other LPDES and EPA permits regulating similar discharges of stormwater associated with industrial activity, as defined in LAC 33:IX.2522.B.14 [40 CFR 122.26(b)(14)].

Facility Specific SWP3 Conditions: In addition to the requirements specified above, the permittee shall review and update the SWP3 as follows: (1) six (6) months after the commencement of discharges at Outfalls 004 and 104 and (2) six (6) months after start-up of operations at the ethanol plant (including the fertilizer plant) and the commencement of any discharges from Internal Outfall 204. Under (1) above, the permittee has indicated that intermittent discharges may occur from Outfalls 004 and 104 prior to start-up of operations at the ethanol plant (including the fertilizer plant) due to the following: (a) discharges of cooling tower blowdown and boiler lowdown from Internal Outfalls 10A and 10B that may be sent to the wastewater treatment plant which will ultimately discharge through Outfalls 004 and 104; (b) discharges of wastewater from Outfalls 001 and 003 that may be sent to the wastewater treatment plant which will ultimately discharge through Outfalls 004 and 104; and (c) discharges of hydrostatic test wastewater from the sugarcane mill's operations that may be sent to the wastewater treatment plant which will ultimately discharge through Outfalls 004 and 104.

X. **TMDL Waterbodies:**

Subsegment No. 050601 of the Mermentau River Basin is not listed on the 2006 Final Integrated 303(d) List as impaired for Dissolved Oxygen (DO) because the TMDL Summary for the Lacassine Syrup Mill was finalized on April 10, 2006. However, an impairment for Mercury is listed, but it will not be addressed because this impairment applies only to those waterbodies specifically identified in the integrated report and not to the subsegment unless so specified. Therefore, since the discharges from this facility flow into a tributary of the named waterbody, requirements for Mercury will not be included in this draft permit. According to the TMDL Summary, the following seasonal water quality-based concentration limits and non-point reductions for West Bayou Lacassine were developed for the sugarcane mill:

Summer Season (March - November)	Winter Season (December - February)
$CBOD_5$ 5 mg/L	$CBOD_5$ 10 mg/L
DO (min.) of 5.0 mg/L	DO (min.) 5.0 mg/L
22% reduction of nonpoint source load - Monitor DO in the receiving stream	Monitor DO in the receiving stream

The seasonal requirements for $CBOD_5$ were established as a monthly average limit in the current permit. However, based on recommendations by the Water Quality Modeling Section, the permittee will be required to comply with the seasonal monthly average concentration limits for $CBOD_5$ based on the TMDL Summary for the combined discharges from Outfalls 001,

003, and 004 by determining the flow-weighted concentration value using flow (in MGD) and $CBOD_5$ (in mg/L) sample data collected during the same 24-hour sampling period from these outfalls. The combined discharges from these outfalls shall not exceed 2 MGD.

The formula is provided below:

$$C_T = \frac{C_1Q_1 + C_3Q_3 + C_4Q_4}{Q_1 + Q_3 + Q_4}$$

Where C_T = flow-weighted concentration value of the combined discharges
C_1= concentration value for Outfall 001
Q_1= flow for Outfall 001
C_3= concentration value for Outfall 003
Q_3= flow for Outfall 003
C_4= concentration value for Outfall 004
Q_4= flow for Outfall 004

Using this methodology, the permittee will be required to meet the seasonal limits by taking into consideration the combined discharges from the existing sugarcane mill and proposed ethanol plant (including the fertilizer plant) which will ensure that the water quality concerns related to the facility as a whole are addressed. [NOTE: All of the wastewater from the fertilizer plant will be recirculated and reused in the plant with the exception of first-flush and post first-flush process area stormwater runoff.] Therefore, the permittee will be required to monitor for $CBOD_5$ (monthly average) at the above mentioned outfalls and report the result as a flow-weighted concentration value for these discharges on the DMR for Outfall 001 for compliance purposes.

The seasonal requirements for DO were also established as a monthly average limit in the current permit. Therefore, the methodology and formula used to calculate $CBOD_5$ will be applicable to DO as well. The permittee will be required to monitor for DO (monthly average) and report the result as a flow-weighted concentration value for these discharges on the DMR for Outfall 001 for compliance purposes.

A monthly average flow limit of 2 MGD will be established in the draft permit for Outfalls 001, 003, and 004 (combined) based on recommendations by the Water Quality Modeling Section. This determination is based on modeling projections which demonstrated that the permittee could discharge a $CBOD_5$ of 5 mg/L (summer) and 10 mg/L (winter) at a combined flow of 2 MGD or less and still meet the numerical criteria of the receiving stream. Therefore, the permittee will be required to monitor for flow (monthly average) during the same sampling period from these outfalls and report the result as an arithmetic sum of the daily discharges from these outfalls on the DMR for Outfall 001 for compliance purposes.

Additional requirements recommended by the Water Quality Modeling Section include the establishment of a monitoring requirement for Total Phosphorus, Ammonia, Nitrate-Nitrite, and Total Kjeldahl Nitrogen for data gathering purposes to: (1) demonstrate that there will be no adverse impact on the receiving stream from the discharges at Outfalls 001 and 003 and (2) determine if nitrogenous constituents will be discharged at a level that could cause an adverse impact on the receiving stream from the discharges at Outfall 004.

Furthermore, the permittee shall be required to comply with the following requirements for DO in accordance with the TMDL Summary:

1. Best management practices must be implemented to achieve reductions of man-made nonpoint source loading during the summer season (March - November).

2. Compliance with the reductions of man-made nonpoint source loading shall be verified by monitoring DO for compliance with the summer season (March - November) criterion of 3 mg/L and winter season (December - February) criterion of 5 mg/L once per month using a grab sample at the following locations during periods when the permittee is in operation. Samples shall be taken at mid-depth or 1-meter below the surface, which is less:

   Bridge at juncture of West Lacassine Tributary and Abell Road
   Bridge at juncture of West Bayou Lacassine and Abell Road
   Bridge at juncture of West Bayou Lacassine and Ardoin Cove

A reopener clause has been placed in Part II of the permit to allow for more stringent or additional limitations or requirements to be placed in the permit, if needed, as a result of any modifications to the TMDLs.

XI. Compliance History/DMR Review:

A compliance history/DMR review was performed for the period of March 2007 through March 2009:

A. CONSOLIDATED COMPLIANCE ORDER & NOTICE OF POTENTIAL PENALTY WE-CN-08-0321 was issued to Lake Charles Cane-Lacassine Mill, LLC on or about March 3, 2009, for unauthorized discharges and permit violations.

B. DMR Excursions Reported

Date	Parameter	Outfall	Reported Value	Permit Limit
12/08	TSS	101	312 mg/L	100 mg/L

Date	Parameter	Outfall	Reported Value	Permit Limit
12/08	TSS	101	125 mg/L	100 mg/L
10/08	$CBOD_5$	001	19 mg/L	15 mg/L
09/08	pH	001	5.8 s.u. (Min.)	6.0 s.u. (Min.)
08/08	DO	001	2.6 mg/L (Min.)	3.0 mg/l (Min.)

C. The most recent inspection was performed on March 25, 2008. The inspection report noted the following: (1) the permittee failed to comply with the conditions of the permit. Specifically, the permittee was not monitoring the discharges at Internal Outfalls 101 and 201; (2) the permittee failed to properly operate and maintain its facility as evidenced by the numerous spills and leaks around the west side of the concrete parking lot; (3) the permittee did not have a Storm Water Pollution Prevention Plan (SWP3) on-site at the time of the inspection; and (4) the permittee had not conducted instream monitoring for DO at the three locations specified in the permit.

On March 6, 2009, the permitee submitted additional information (dated March 3, 2009) which included revised DMRs for Internal Outfall 101 (covering the monitoring period of June 2007 and September 2007 through March 2008; Internal Outfall 201 (covering October 2007 through December 2007); Outfall 002(covering the monitoring period of April 2007 through March 2008); and the 2007 Annual DO Report for instream monitoring performed on the receiving stream.

XII. "IT" Questions - Applicant's Responses

This applicant is not required to submit "IT" Questions in accordance with La. R.S. 30:2018(A). However, the permittee has provided an Environmental Impact Statement (including "IT" Questions) as part of the application submittal (dated October 17, 2008).

XIII. ENDANGERED SPECIES

The receiving waterbody, Subsegment No. 050601 of the Mermentau River Basin is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U.S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated November 17, 2008 from Rieck (FWS) to Nolan (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. The

effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat. Therefore, the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat.

XIV. Historic Sites:

The discharges will be from a proposed facility and an existing facility. LDEQ has consulted with the State Historic Preservation Officer (SHPO) in a letter dated October 2, 2008, to determine whether construction-related activities could potentially affect sites or properties on or eligible for listing on the National Register of Historic Places. SHPO's response letter, dated October 20, 2008, stated that the facility as proposed will have no potential effects.

XV. Tentative Determination:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to revoke and reissue a permit for the discharges described in the application.

XVI. Variances:

No requests for variances have been received by this Office.

XVII. Public Notices:

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List